

Far North Coast Bromeliad Study Group N.S.W.

Study Group meets the third Thursday of each month

Next meeting April 21st 2016 at 11 a.m.

Venue: PineGrove Bromeliad Nursery
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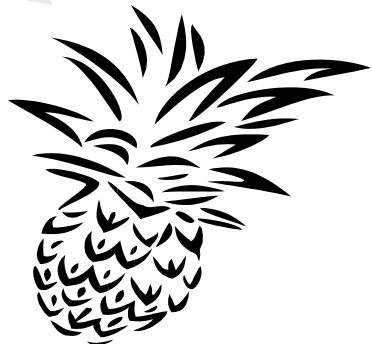
Discussion: March 2016

General Discussion

Editorial Team:

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Helen Clewett

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Meeting 18th February 2016

The meeting was opened at approximately 11.00 am
The 19 members and one visitor present were welcomed.
A total of two apologies were received.

General Business

Ross welcomed everyone and distributed the Newsletter drawing our attention to the two articles on CAM photosynthesis with the article on page 13 setting out some of the history and research findings.

Our attention was also drawn to the upcoming Queensland Bromeliad Society Tillandsia Day to be held on 17th April 2016 at the New Market State School, Bank Street, Newmarket in Brisbane. It is always an informative day, beginning at 9am (Qld. time) together with sales of rare and interesting Tillandsias.

The Treasurer's Report was tabled by Helen for our perusal.

It was noted by the meeting, Professor Dr. Leonardo Versieaux's acknowledgement of Ross's contribution in preparing and presenting a botanical specimen for identification of *Alcantarea australiana* (formerly known as *Alc.* 'Imbe'). It was named in honour of the contribution Australians made in the identification of this species, having come to Australia as seed many years ago. "Imbe" is the locality where this *Alcantarea* grows naturally in Brazil.

Mail for the month was the BSI Journal containing an article by Elton M.C. Leme & Ludovic J.C. Kollmann on the new ornamental *Alcantarea glaucifolia*.

Show Tell and Ask!

Ross had *Aechmea flavorosea* in flower, showing the signature thumb imprint midway down the leaf, similar to the imprint on *Aechmea nudicaulis*. The yellow petals help differentiate this plant from *Ae. fasciata* and *Ae. caesia*. (photo p.10) Also shown was *Tillandsia dodsonii*, with its pendulous inflorescence. Ross commenting that he saw them, growing in the wild at the stated site, when in Ecuador, in July 2015. **Type.** *C. H. Dodson* 5225 (holotype US), epiphytic in old orange trees along road, km 30 on Santo Domingo to Quito road, Pichincha, Ecuador, 1100 m alt, 27 Dec 1972. (photo p.7)

Another discussion was about the erroneous *Hohenbergia membranostrobilus* that was misnamed in our collections for many years which was corrected to *Hohenbergia disjuncta* and in 2007 reassigned to *Aechmea disjuncta* by Leme & J. A. Siqueira. Shown were the green leaf and banded leaf forms. (photos p.7)

A question from Dave: "Can and how would you take an *Aechmea* from pot culture and grow it on a tree?" The following recommendations were made, "yes you can grow your *Aechmea* in a tree, preferably on one that does not have deciduous bark". There were many comments about seeing bromeliads growing in South America that had naturally attached themselves, as seed, to eucalyptus trees and the bark had been shed all around the plant with the plant still firmly attached by its roots to the tree.

The next recommendation was to attach your plant firmly to the tree in at least three places with baler twine, preferably brightly coloured so that you would be reminded to remove the twine after the *Aechmea*/other species had attached to the tree. Your plant needs to be thoroughly immobilised or attachment will not occur. Nails or staples can also be used for attaching your bromeliads, although staples would possibly not last long enough on rough barked or deeply fissured barked trees before root attachment was adequate.

The trees recommended for attaching your bromeliads to are poinciannas, palms, jacarandas, frangipanis, callistemons, eucalypts and mango trees etc.

Gloria raised the current issue of mosquitos and Zika Virus and any possible relationship with Bromeliads. It was noted that there have been scientific papers written on the subject of mosquitoes and Bromeliads and it was time for us to review the subject at a future meeting.

There was also much discussion about frogs and Bromeliads and the role they play in controlling the mosquito larvae population. John drew our attention to an article in a BSI journal about frogs living in bromeliads in Costa Rica. (article p.4)

Jeanette brought in an interesting *Neoregelia* 'Strawberry Cup' which had developed a dual flowering head prior to anthesis. (photo p.8)

Jeanette also showed a *Canistrum seidelianum* in flower. The yellow flowers and apricot pink floral bracts offset by the magnificent banding on the foliage and peduncle bracts. (photo p.9)

Laurie showed us some of his Tillandsias, the first being *Till. concolor* x *medusa* and a Margaret Paterson cross *Till.* 'Gunalda'.

Some advice was sought regarding cameras, "what is a good camera to buy?" Speaking from his experiences Ross suggested, portability is something to keep in mind, ease of use, "point and click" is an option if you are not camera wise. Also, take a look around and see what other people are using as well as seeking advice from your camera retailers. Ross purchased a mid range "point and click" Canon for his recent travels, this one works fine for landscape photos etc. as it has a reasonable zoom range but not as good as his old similar style Kodak for colour clarity and close-ups. A date for a talk about cameras has yet to be set.

Bromeliad Frogs of Puerto Rico

by Juan A. Rivero

Reprinted from: Journal of The Bromeliad Society International
Volume 34 (2), 1984. (with additional photos)

Bromeliad frogs may be classified into four general types: those that lay their eggs in bromeliads or elsewhere in a terrestrial environment, but do not pass through a tadpole stage (their development is direct), those that bear their young alive without passing through a free egg or tadpole stage (they are ovoviparous), those that lay their eggs in bromeliads and pass through a tadpole stage in the water contained in the plant, and those that lay their eggs elsewhere, but carry the tadpoles to bromeliads on the back of one of the parents.

Frogs in the latter two categories face two difficult problems: the scarcity of food and the limitations of space. In adapting to these problems, tadpoles are usually carnivorous and cannibalistic. They feed not only on the invertebrate inhabitants of the plant, but also on the eggs and larvae of their own and other species. A case is known where the female frog lays infertile eggs in the bromeliad and these serve as a continuous food supply for the developing larvae. This is probably the only case known where a frog takes care of feeding its larvae. Other evidences of adaptation are that bromeliad frog eggs are few in number, and the tadpoles are small, slender, and elongated.

Ovoviparous frogs and those that omit the tadpole stage do not have to face these problems as eggs develop into froglets, or froglets are born from the mother frog, and they are immediately capable of fending for themselves in the terrestrial environment.

Puerto Rican frogs belong to these two categories. Of the eighteen native species, sixteen belong to the genus *Eleutherodactylus* (from the Gr. meaning free digits) and of these, seven are bromeliad inhabitants. All members of the genus *Eleutherodactylus* have direct development, except that one species, *Eleutherodactylus jasperi* bears its young alive.

The bromeliculous species may be further subdivided into the obligatory inhabitants of bromeliads of which there are three species, and those that are optional or opportunistic users of bromeliads. The latter may lay their eggs in bromeliads and may stay in these plants during the daytime, but they may also reproduce and stay in other humid environments.

The most notable of the obligatory bromeliad inhabitants is also the most recently described species: *Eleutherodactylus jasperi*.

It is a small frog, not more than 20 mm in snoutvent length, and it is of a beautiful yellow or greenish yellow color, but its most distinctive feature is that it bears its young alive.

There is no other ovoviparous frog in the Western Hemisphere, and in the world there are only a few species of African toads (genus *Nectophrynoides*) that give birth to living young. *E. jasperi* is very limited in its distribution and is now protected by federal law.



Eleutherodactylus jasperi.



Eleutherodactylus gryllus

The other two species that are in bromeliads most of the time are *E. gryllus* and *E. cochranæ*. The first is a very small (16mm) and slender frog with long legs and a brownish green or yellowish green coloration that is sometimes divided along the middorsal line by a whitish stripe. It is an inhabitant of forested areas at high elevation, where its voice, a cricket-like series of chirps (hence the name *gryllus* [L. *gryllus* cricket]) is often heard at night.



Eleutherodactylus cochranæ

E. cochranæ is more partial to the dry and intermediate areas where the only bromeliads available may be members of the genus *Tillandsia*. It is also a small frog, its basic dorsal color is gray, and it generally has two markings in the form of externally concave parenthesis on the anterior part of the back. As it is sometimes found in places where bromeliads do not occur, it is perhaps the least obligatory of the three species mentioned.

The opportunistic species are *E. coqui*, *E. portoricensis* and *E. locustus*.



Eleutherodactylus coqui

E. coqui is the most famous Puerto Rican frog, not only because it is considered the national animal and because its bird-like song can be heard practically everywhere, including the big hotels in the tourist section of the capital city, but also because it was the first frog in which direct development (omitting the tadpole stage) was observed. *E. coqui*, furthermore, is one of

the few animals whose call has two components, one of which (the co-of co-kee) serves as a mating call while the other (the kee-of co-kee) has a territorial function. The name *E. coqui* comes from the onomatopoeic sound of its voice and

from the common name used to designate the species (coqui, pl. coquies). It is said that some people get so used to the voice of the coqui that they cannot sleep when they don't hear it and have to take a record of the voice whenever they travel to the outside. For many years there was a colony of this species at the Fairchild Gardens in Miami and there is a thriving one at the Kerry's Nurseries in Homestead, Florida. For more than four years, a few males have been calling from bromeliads in Jeanne Garman's garden in New Orleans.



Eleutherodactylus portoricensis

E. portoricensis is so similar to *E. coqui* that for many years they were thought to represent one and the same species. But it was discovered that the voice of some specimens was faster and had a higher pitch than others, and when properly examined they were found to have chalky white eyes (the upper half) and white freckled venter. These were found to represent *E. portoricensis*. The other species with a much wider distribution, a lower pitched voice, brown or gray eyes and muddy colored venter was named *E. coqui*.

Both species, *E. coqui* and *E. portoricensis*, may lay their eggs (fifteen to twenty-five) in bromeliads and they may also stay in bromeliads during the daytime, but they may also stay and lay their eggs in other humid places.



Eleutherodactylus locustus

E. locustus is also a small frog, about 20 mm long, having very protuberant and large eyes and, as in the case of *E. cochrane*, with an inverted parenthesis on the back. In the very humid forest it is seldom found in bromeliads, but in intermediate areas it may be found in bromeliads together with *E. jasperi*.



Eleutherodactylus monensis

E. monensis occurs only in Mona Island, forty-five miles west of mainland Puerto Rico. It is an occasional inhabitant of tillandsias (the only bromeliads on Mona), but it is more often found in sinkholes or in shallow caves.

REFERENCE:

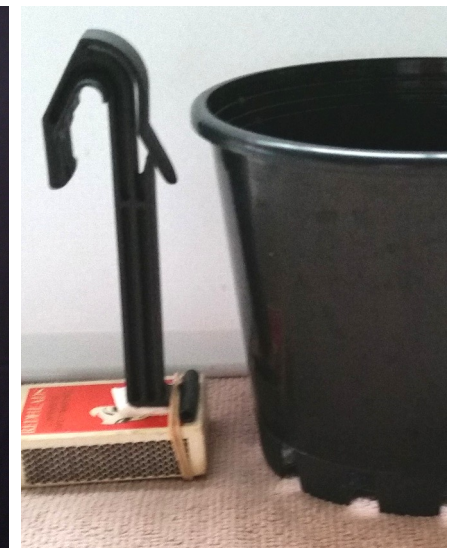
Rivero, J.A. 1978. *The Amphibians and Reptiles of Puerto Rico*. Rio Piedras, P.R.: Editorial Universitaria. (Photographs from the book and wikipedia).



Aechmea disjuncta the banded form and a more green/non banded form grown by Ross Little



Tillandsia dodsonii grown by Ross Little



Pot hooks shown by Gloria Dunbar

Photos by Ross Little and Gloria Dunbar



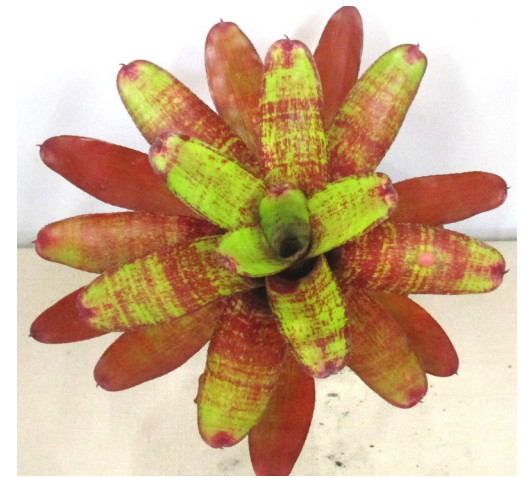
Tillandsia 'Creation'
1st Open John Crawford



Vriesea ospinae
1st Novice and Judges Choice Ted Devine



Canistrum seidelianum
grown by Jeanette Henwood



Neoregelia 'Golden Promise'
grown by Gloria Dunbar



No trick photography or photoshopping,
it's Jeanette's two headed Neoregelia



Aechmea orlandiana
decorated by Laurie Mountford



Neoregelia hybrid possibly 'Balsa'
grown by Keryn Simpson



Guzmania hybrid
grown by Kay Daniels



Neoregelia 'Bill Morris'
grown by Dave Boudier



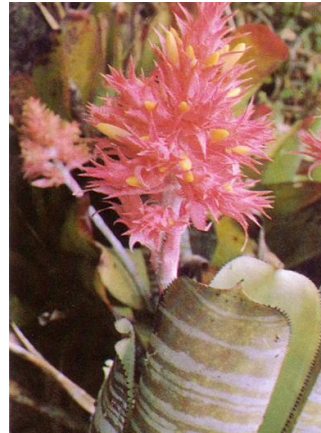
'Caged Tillandsias'
1st Decorative Helen Clewett

Photos by: Ross Little

What's in a Name ?

by Victoria Padilla

These photos of an *Aechmea* taken in habitat in Brazil were sent to the editor for identification. She, in turn, forwarded them on to Lyman B. Smith at the Smithsonian Institution, who identified them as *Aechmea caesia* E. Morren. This information came as a surprise, for the plants of *Ae. caesia* seen in western nurseries in no way resembled that of the beautiful species shown in the photo. In fact, the plant of *Ae. caesia* in the editor's collection was so unprepossessing that she relegated it to the trash bin.



Then word came from Luiz Gurken of Rio de Janeiro, who had originally sent the pictures, that the plant had been identified by the eminent Brazilian botanist Dr. Edmundo Pereira as *Aechmea flavorosea*. He sent a type specimen on to Dr. Smith, who still maintains that beyond its beautifully barred leaves there is no difference from *Ae. caesia*. Dr. Smith writes, "Don't be confused if botanists disagree - it is only normal."

When a plant is so lovely as this *Aechmea*, does it matter what it is called ?

Taken from:
Journal of The Bromeliad Society
30(1): 24-5. 1980



Aechmea caesia
photo John Catlan



Aechmea flavorosea
grown by Ross Little

Aechmea flavorosea

by Elton M.C. Leme

Since Edmundo Pereira described *Aechmea flavorosea* there has been some discussion about the validity and the maintenance of such an interesting bromeliad in the rank of species. The description was based on a specimen that bloomed in cultivation in Roberto Burle Marx's collection and he does not know the exact place where it was collected.

Being so, we must stress here that the pictures printed in this *Journal* were not taken in the habitat of *Ae. flavorosea*. In fact, they show a vigorous clump from which the type specimen was selected. That clump can still be observed thriving in full sun along the back path of Burle Marx's mansion.

As was reported in the *Journal* (1980), Dr. Lyman B. Smith did not consider the characteristic mentioned by Edmundo Pereira good enough to assure to *Ae. flavorosea* the status of distinct species when compared with its closest relative *Ae. caesia* E. Morren ex Baker. Concerning the same problem, Harry Luther recently stated that, in his opinion, the Pereira species would be better positioned from the taxonomic viewpoint in an infraspecific category, as a variety or subspecies of *Ae. caesia*.

Without doubt, before any future conclusion can be reached, it is necessary to accumulate more field data on these two species. With *Ae. flavorosea*, the first step can be represented by a well-documented collection of the specimen. It was found by Carlos Eduardo de S. Carvalho, a bird watcher, in the County of Santa Maria Madalena, Rio de Janeiro State, growing epiphytically in a humid and forested area about 600 meters high.

In contrast with the white cross-banded leaves of the type plant of *Ae. flavorosea*, the new collection shows entirely dark green leaves forming a funnel form rosette, as well as more intensely colored bracts with visible loss of concentration of white scales; at least the yellow color of the petals remained unchanged, differing from the reddish lilac petals presented by *Ae. caesia*.

On the basis of this newly collected specimen we can better understand the degree of variation of *Ae. flavorosea* and realize how close it could approach to *Ae. caesia*. On the other hand, of the two known collections of *Ae. caesia*, one of them was made in Santa Maria Madalena (or just Madalena) by Mello Filho, showing that both species are sympatric or just a case of misidentification (but not in Dr. Smith's point of view).

Now we know, at least where to start looking for *Ae. flavorosea* in order to obtain other information, besides that presented here, which is not enough for a definitive conclusion, although I earlier agreed with Mr. Luther's suggestion to transform the Pereira species to a subspecies or variety (or even a form) of *Aechmea caesia*.

Reprinted from: Journal of The Bromeliad Society 40(6): 261-2, 1990

How to Select, Prepare and Present Your Bromeliads for: Competition and Exhibition. by Jeanette Henwood 2016

Jeanette, gave a very interesting talk and demonstration on choosing, preparing and presenting bromeliads for exhibition and competition. Jeanette indicated that she will spend the next three years learning to become an accredited Bromeliad Judge, we wish her every success in this endeavour.

Jeanette began by outlining the basic essentials:

Select your plant well in advance of the competition date, possibly as much as six months in advance. Choose your plant on its symmetry, checking on all the leaves for damage and seeing that the symmetry of the plant will not be altered with the removal of one or two damaged leaves. It is preferable to choose plants



which can have the leaves trimmed or reshaped rather than leaf removal. Leaves can be reshaped at the tips or down the sides matching the form of the other foliage. The trimming is best done with a pair of clean sharp scissors no earlier than the day before the competition.

Before removing damaged leaves which may have splits or holes in them, place a piece of paper over the leaf/leaves and check on the symmetry of the whole plant by looking from above, over the plant. If you are satisfied that the symmetry will not be effected remove the

damaged leaves by splitting them down the centre and pulling each section in opposite directions where they will detach at the base.

Pots are to be clean and may be rejuvenated by wiping with a little cooking oil on a soft cloth or spraying with a little personal insect repellent and wiping with a soft cloth. The pots should be free of salts, algae, weeds, insects, frogs, spiders and webs.

Removing old mother plants, these may be trimmed away and potting mix added to cover the old stump.

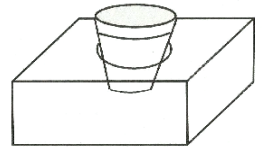
The correct time to remove pups from a single specimen plant occurs when they are able to sustain themselves.

Dead flowers in Vriesea inflorescences should be removed prior to exhibiting or competition.



The plant should be firmly set in the pot and centred. Do not repot the plant close to competition time. A plant which is not centred can be reset by removing, adjusting the root ball, centring back in the pot and adding potting mix to the correct level, tapping the base of the pot on the bench top, firming the bromeliad in the pot. If the plant is not at the correct level, remove the plant from its pot and reset lower or repot into a size larger pot in order to have the potting mix level with the base of the foliage.

Trimming variegated or marginated bromeliads for competition can be very difficult and avoided if possible.



Transporting your plants:

Always empty the water out of your plants before transporting and showing.

It is recommended that you use paper sleeves to support your plants foliage. Do not mix bromeliads with spines on their leaf margins with those that have not. Use upturned polystyrene boxes with suitable pot sized holes cut to sit the plants in during transit. Alternatively one could use polystyrene boxes the right way up, adding scrunched up newspaper packed around your pots for safe transporting. Use boxes of sand or commercial trays which have individual sections for carrying your plants.

All plants exhibited should be correctly identified, the label should show:

The genus plus the specific epithet make up the species name e.g. *Aechmea fasciata*. *Aechmea* = genus, *fasciata* = specific epithet, together they equal the species name. The genus name always begins with a capital letter while species names are Latinised but never capitalized.

Hybrid names should be in English with a fancy name (not Latinised) and always capitalised and preceded by the genus name e.g. *Aechmea* 'Royal Wine'. If your plant is an unregistered hybrid note 'unreg.' after the name. Do not enter a plant without the plant's identifying label.

There must not be any identifying labels, names or markers on the pot or the display mount that may give any indication as to the owner of the exhibit.

The definition of a Decorative container:

A decorative container or mount is one which has artistic qualities that are: coloured, textured or patterned onto or in which the plant is attached or planted and is growing. Examples of such, are pieces of gemstones or minerals, pieces of coral, ceramic pots or bowls and shells.

Tillandsias mounted on pieces of cork, small branches or small pieces of old timber would be regarded as standard entries not decorative.

Thank you Jeanette, your demonstration and talk was very informative, we should all know exactly what is required in preparing our bromeliads.

Summer Problems

by Lindsay Jones

Now that we are through summer you may find that some of your plants are showing some unwanted features that could be related to summer's unique conditions. The following are some problems you may be encountering and some possible solutions.

Sunburn: This can occur extremely quickly on very hot days. All attempts should be made to ensure maximum protection for the middle of the day but thought should be given to late afternoon protection as the sun can be quite intense even after 5.00pm on some days. Relocation of a plant when taken from low light (indoors) to outdoors (even not if into direct light) may cause extensive burning. Gradual increase in light will allow the leaves to toughen up after an extensive indoors stay. The sun is higher in the sky so that which was in shade during winter (2hrs mild midday sun) may not be during summer (4hrs intensive direct midday sun). The days are longer in summer which may cause bleaching.

Heat: Usually this is in association with sunlight and dehydration. Plants can be cooked in a glasshouse where the light isn't necessarily high and the humidity is very high. Watch out for heat reflected from walls, windows and from the pavement. Plants will be burnt on one side even though they are not in direct light.

Dehydration: The drying out of plants puts strain on plants which in itself will result in irregular growth. The drying of roots reduces their ability to take up nutrients. Soil will fall away from the roots or may be set into a pot-shaped rock. The re-wetting of the soil may be difficult and take a long soak. The lack of moisture can cause young leaves not to develop, stick together and longitudinal leaf curl may occur. To avoid the problem, water more often, locate plants in a place where dehydration is minimized, use soil conditioners such as compost, peat moss or artificial conditioners. Wetting agents for the soil also help as they will ensure when watered the moisture goes through all of the pot and is captured.

Pests: These are generally fewer in number in summer however not totally absent. Crickets seem to be the most active, since they are prepared to eat anything, Bromeliads are at risk. Grasshoppers are similar. Mozzies breed and although they wont harm the Broms they may upset people. Heat and humidity in glasshouses (and shade houses) results in high activity from the likes of mealy bug and scale.

Wind: Our strongest winds are winter winds but thunderstorms are common in Perth in summer as are strong easterly winds. However the most destructive aspect is probably due to their drying affect, particularly to those items that are suspended above ground level. Give special attention to hanging baskets and Brom trees which may need watering daily. If wind is a problem then you can put up a wind break with shade cloth, move plants out of the winds passage or simply lower them to ground level temporarily.

Reprinted from: Bromlink the bi-monthly Journal of The Bromeliad Society of Western Australia Inc. Volume 8, No.4, January / February 1988.

Novice Popular Vote

1st	Ted Devine	<i>Vriesea ospinae</i>
2nd	Keryn Simpson	<i>Neoregelia</i> 'King of Kings'
3rd	Kevin Jones	<i>Vriesea</i> 'Black Beauty'

Open Popular Vote

1st	John Crawford	<i>Tillandsia</i> 'Creation'
2nd	Kay Daniels	<i>Guzmania</i> hybrid ??
3rd	Gloria Dunbar	<i>Neoregelia</i> 'Golden Promise'
3rd	Laurie Mountford	<i>Aechmea orlandiana</i>

Judges Choice

1st	Ted Devine	<i>Vriesea ospinae</i>
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Decorative

1st	Helen Clewett	'Caged Tillandsias'
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Comments from the Growers:

John purchased his *Tillandsia* 'Creation' from the Olive Branch. Initially it grew under shade trees where it didn't get a lot of sun and consequently would not flower. John moved the plant into a sunny position and *Till.* 'Creation' flowered with stunning results. John now has his plants growing under 50% white shade cloth and in summer, places a second layer over the other giving more protection. The Tillandsias grow, hanging high under the top of the shade house, are well fed with slow release fertiliser and watered by a sprinkler system. They get a yearly spray of seaweed solution, John does not have any pest or diseases. John was asked if he could tell us what potting mix he uses. John, along with his trusty concrete mixer, blends, 50% pine bark, 25% coal ash, 25% coconut husk chips along with Zeolite, Diatomaceous Earth (for Mealy Bug), rock dust and cracker dust/crusher dust, ending up with a mix that works very well for his needs and conditions.

Gloria grew her mini *Neoregelia* on these special hooks that allow you to hang plants on metal frames like screen doors. The hooks are available online or through the Gold Coast Bromeliad Group. *Neo.* 'Golden Promise', a hybrid of Margaret Paterson's, is very similar to *Neo.* 'Jewellery Shop', which Gloria also has in her collection. Gloria grows it under 50% beige shade cloth and waters it frequently in summer. (photo of pot hooks used by Gloria p.7)

Kay could not give us any information on her *Guzmania*, other than it has grown very well in her shade house along with a lot of other bromeliads, gets fertilised with Osmocote, slow release, and in summer is watered regularly.

Laurie grows his *Aechmea orlandiana* in full sun, waters it when his other Bromeliads in the shade house are watered and feeds occasionally with Dynamic Lifter.

Ted grows his *Vriesea ospinae* in his garden under the shade of many large deciduous trees. Ted indicated he had spent a week preparing his plant for the competition removing dead leaves and litter from the trees and making it “presentable.” Ted sprays with Confidor, for pests and diseases, fertilises with slow release and waters regularly.

Kevin obtained his *Vriesea* ‘Black Beauty’, now a beautifully grown plant, as a pup from our raffle sometime ago. It grows under beige shade cloth and receives afternoon sun. On a friend’s recommendation, Kevin, occasionally nourishes the *Vriesea* with water in which egg shells have been soaked for four to five days then removed and given to his plant. Kevin waters his plants every day with a light spray.

Keryn obtained her *Neoregelia* ‘King of Kings’ from the Gold Coast Bromeliad and Succulent Society sales. It grows in her garden under large trees and lately is protected by a sheet from the very hot afternoon sun. Keryn like many of us that grow our bromeliads out in the garden spent many hours preparing the plant for our competition. Keryn uses Confidor for the control of pests and diseases.

Note to the Voters:

Gary has made a specific request for everyone, when numbering your Competition voting tickets, to please make a special effort to write, clearly and distinctly, he is finding it very difficult to read some of our efforts. Surely it is not difficult to write a number clearly, it may mean that some of your votes will be discarded if this happens again!

Members Talks for 2016.

March: We have Les, supported by Kay, giving a talk on pH.

April: Debbie will tell us about the link between potting mixes and Legionnaires Disease.

June: Keryn and Dave, are going to conduct a Quiz on Pests and other things associated with Bromeliads.

To be advised: A talk about photography and Bromeliads in their habitats: in our gardens, shade houses and at competitions and shows.